

WHAT IS CLAIMED IS:

1. An image processing method, comprising the steps of:
providing image data generated by an image generating device,
5 and image generation record information associated with the image data,
the image generation record information including at least operating
information about the image generating device at the time of generation of
the image data; and
when the image generation record information includes subject
10 brightness information relating to brightness of a subject at the time of
generation of the image data, adjusting picture quality of the image data
using a subject brightness level derived from the subject brightness
information.
- 15 2. An image processing method according to Claim 1, wherein
the picture quality adjustment step includes a step of executing
color balance adjustment processing of the image data using the subject
brightness level.
- 20 3. An image processing method according to Claim 2, wherein
the picture quality adjustment step includes a step of adjusting
intensity of the color balance adjustment processing to a higher level as the
subject brightness level becomes lower, over at least a portion of the subject
brightness level range in which the subject brightness level is low.
- 25 4. An image processing method according to Claim 3, wherein
the picture quality adjustment includes:
 - (i) a process of analyzing the image data to determine a
magnitude of color shift indicating an extent of color skew in the image
30 data;
 - (ii) a process of selecting a processing level of the color balance

adjustment processing, based on the magnitude of the color shift, and
(iii) a process of executing the color balance adjustment processing according to the selected processing level;

and wherein the intensity of the color balance adjustment processing is adjusted by varying a process parameter that affects result of at least one of the process (i) and (ii).

5. An image processing method according to Claim 4, wherein
the picture quality adjustment step includes a step of determining
10 the magnitude of the color shift, using pixel values of a substantially achromatic area of the image data.

6. An image processing method according to Claim 5, wherein
the picture quality adjustment step includes a step of determining
15 the magnitude of the color shift, using pixel values of an area located within a substantially achromatic area of the image data but excluding areas thereof having predetermined hue.

7. An image processing method according to Claim 4, wherein
20 the intensity of the color balance adjustment processing is adjusted by varying a process parameter that represents a ratio of the processing level of the color balance adjustment process to the magnitude of the color shift.

25 8. An image processing method according to Claim 5, wherein
the intensity of the color balance adjustment processing is adjusted by varying a process parameter that defines a range of the substantially achromatic area.

30 9. An image processing method according to Claim 2, wherein
the picture quality adjustment step includes the steps of: when

the image generation record information includes supplemental light source firing information at the time of generation of the image data, determining whether the supplemental light source provided illumination at the time of generation of the image data, using the firing information; and executing
5 the color balance adjustment processing using the subject brightness level if it is determined that illumination was not provided.

10. An image processing method according to any of Claims 1 to 9, wherein

10 the image generation record information further includes supplemental light source firing information at the time of generation of the image data, and information relating to a distance between the subject of the image data and the image generating device at the time of generation of the image data,

15 and wherein the picture quality adjustment step includes a step of performing the picture quality adjustment processing suitable for a portrait image when it is determined that the supplemental light source provided illumination based on the firing information, and that the distance from the subject is shorter than a predetermined distance threshold value,
20 and that the subject brightness level is above a predetermined brightness threshold value.

11. An image processing method according to Claim 1, wherein
the picture quality adjustment step includes a step of, when the
25 image generation record information includes photometric brightness information regarding a result of measuring subject brightness at the time of generation of the image data, calculating the subject brightness using the photometric brightness information.

30 12. An image processing method according to Claim 1, wherein
the picture quality adjustment step includes a step of, when the

image generation record information includes information relating to aperture value and information relating to shutter speed of the image generating device at the time of generation of the image data, calculating the subject brightness level using the aperture value and the shutter speed.

5

13. An image processing method according to Claim 1, wherein the picture quality adjustment step includes a step of, when the image generation record information includes information relating to aperture value, information relating to shutter speed of the image generating device at the time of generation of the image data, and information relating to optical circuit sensitivity, calculating the subject brightness level is using the aperture value, the shutter speed, and the sensitivity.

15

14. An image processing device for performing image processing using image data generated by an image generating device, and image generation record information associated with the image data, the image generation record information including at least operating information about the image generating device at the time of generation of the image data, the image processing device comprising:

20 a picture quality adjuster that, when the image generation record information includes subject brightness information relating to brightness of a subject at the time of generation of the image data, adjusts picture quality of the image data using a subject brightness level derived from the subject brightness information.

25 15. An output device for outputting an image using image data generated by an image generating device, and image generation record information associated with the image data, the image generation record information including at least operating information about the image generating device at the time of generation of the image data, the output

device comprising:

a picture quality adjuster that, when the image generation record information includes subject brightness information relating to brightness of a subject at the time of generation of the image data, adjusts picture quality of the image data using a subject brightness level derived from the subject brightness information, and

an image output unit for outputting an image according to the image data after the picture quality adjustment.

10 16. A computer program product for causing a computer to execute image processing using image data generated by an image generating device, and image generation record information associated with the image data, the image generation record information including at least operating information about the image generating device at the time of
15 generation of the image data, the computer program product comprising:

a computer-readable medium; and

20 a computer program stored on the computer-readable medium, the computer program includes a program for causing a computer to execute a function of, when the image generation record information includes subject brightness information relating to brightness of a subject at the time of generation of the image data, adjusting picture quality of the image data using a subject brightness level derived from the subject brightness information.